WE CLAIM AS OUR INVENTION:

1. A method for operating high-bit-rate data transmission devices on a subscriber line connecting a subscriber terminal device and a telephone exchange, wherein voice information and low-bit-rate data can also be transmitted on the subscriber line, and wherein during a transmission of high-bit-rate data, a connection for transmitting the high-bit-rate data bypasses a core region of the telephone exchange and connects to a data transmission network as a permanent connection between a high-bit-rate data transmission device at the subscriber side and a high-bit-rate data transmission device at the telephone exchange side and an access device of the data transmission network, the method comprising the steps of:

in a high-bit rate data transmission device that terminates a subscriber line at a telephone exchange side and in a high-bit-rate data transmission device that terminates the subscriber line at a subscriber side, outside a context of a data transmission, operating only those parts of the high-bit-rate data transmission devices that evaluate a criterion indicating a beginning of a data transmission; and operating remaining parts of the high-bit-rate data transmission devices only when the criterion indicates a beginning of a data transmission.

- 2. The method according to claim 1, further comprising the step of: given use of an xDSL system for high-bit-rate data transmission, evaluating signaling tones that respectively occur in upstream channels and downstream channels as the criterion indicating a beginning of a data transmission.
- 3. The method according to claim 1, wherein the evaluation of criteria takes place permanently.
- 4. The method according to claim 1, wherein the evaluation of criteria takes place at definite intervals.

- 5. An arrangement for transmitting high-bit-rate data on a subscriber line, said subscriber line for transmitting high-bit-rate data, voice information and low-bit-rate data, said arrangement comprising:
 - a subscriber terminal device having a first high-bit-rate data transmission device connected to a subscriber side of a subscriber line, said first high-bit-rate data transmission device having a number of first parts being operated only during a data transmission and having at least one second part, other than said first parts, being operated outside a context of a data transmission and for evaluating a criterion which indicates a beginning of a data transmission and which is applied for purposes of activating said first high-bit-rate data transmission device;
 - a telephone exchange having a second high-bit-rate data transmission device connected to a network side of the subscriber line, said second high-bit-rate data transmission device having a number of first parts being operated only during a data transmission and having at least one second part, other than said first parts, being operated outside a context of a data transmission and for evaluating a criterion which indicates a beginning of a data transmission and which is applied for purposes of activating said second high-bit-rate data transmission device; and
 - an access device for accessing a network connected via permanent connection to said first and second high-bit-rate data transmission devices, said permanent connection for transmitting said high-bit-rate data and bypassing a core region of said telephone exchange.